

I CLAIM:

- 1        1. A highly maneuverable and stable small sized motorized four wheel vehicle for  
2        transporting children or adults, said four wheel vehicle comprising in combination:  
3              a) a frame;  
4              b) a front axle for supporting a front wheel at each opposed end;  
5              c) a steering assembly for turning said front wheels, said steering assembly  
6        including a steering column extending up and canted forwardly, said steering column being  
7        adapted to swing a rider's upper body in the direction of a turn to shift the center of gravity  
8        laterally into the turn;  
9              d) a rear live axle for supporting a rear wheel at each opposed end, one of said rear  
10        wheels being rigidly attached to said live axle and the other of said rear wheels being attached to  
11        said live axle through a fitting adapted to accommodate independent rotation of said other rear  
12        wheel relative to said one rear wheel, including plates extending downwardly from said frame for  
13        supporting said rear axle and adapted to cant said frame forwardly downwardly;  
14              e) a seat assembly for supporting the rider, said seat assembly including a seat  
15        standard mounted forwardly of said live axle;  
16              f) an electric motor mounted on said frame at a location substantially above said  
17        rear axle, said motor including an output shaft;  
18              g) at least one battery mounted at a location on said frame intermediate said seat  
19        assembly and said steering assembly, which location is adapted to be close to the center of  
20        gravity of said vehicle;  
21              h) a drive train interconnecting said motor with said rear axle, said drive train

22 including a cog wheel mounted on said output shaft, a further cog wheel mounted on said rear  
23 axle and a cog belt interconnecting said cog wheel and said further cog wheel to cause rotation of  
24 said one rear wheel; and  
25 i) a compartment located forwardly of said steering assembly, said compartment  
26 being adapted to transport articles placed therein.

1           2. The four wheel vehicle as set forth in Claim 1 including a manually operated  
2 clamp for disengageably engaging a part of said steering assembly with said frame.

1           3. The four wheel vehicle as set forth in Claim 2 wherein said clamp is adapted to  
2 accommodate extension and retraction of said steering assembly to a selectable height.

1           4. The four wheel vehicle as set forth in Claim 1 including a manually operated  
2 clamp for disengageably engaging a part of said seat assembly with said frame.

1           5. The four wheel vehicle as set forth in Claim 4 wherein said clamp is adapted to  
2 accommodate extension and retraction of said seat assembly to a selectable height.

1           6. The four wheel vehicle as set forth in Claim 5 including a further manually  
2 operated clamp for disengageably engaging a part of said steering assembly with said frame.

1           7. The four wheel vehicle as set forth in Claim 1 including a footrest disposed at

2       each opposed side of said frame extending laterally therefrom and intermediate said front axle  
3       and said rear axle for supporting the rider's feet.

1           8.       The four wheel vehicle as set forth in Claim 1 including a body mounted on said  
2       frame, said body being adapted to accommodate extension of said steering assembly and said seat  
3       assembly above said body.

1           9.       The four wheel vehicle as set forth in Claim 1 wherein said front and rear wheels  
2       include tires, said tires of said rear wheels being of a width greater than the width of said tires of  
3       said front wheels.

1           10.      The four wheel vehicle as set forth in Claim 1 including a manually operated  
2       brake for braking rotation of said live axle.

1           11.      The four wheel vehicle as set forth in Claim 10 wherein said brake comprises a  
2       disc brake.

1           12.      The four wheel vehicle as set forth in Claim 1 including a manually operated  
2       throttle for controlling operation of said electric motor.

1           13.      The four wheel vehicle as set forth in Claim 12 including circuitry for controlling  
2       operation of said electric motor in response to said throttle.

1           14.     The four wheel vehicle as set forth in Claim 13 wherein said circuitry includes a  
2       soft start for said electric motor.

1           15.     The four wheel vehicle as set forth in Claim 13 wherein said circuitry is adapted  
2       to control operation of said electric motor to control operation of said electric motor selectively  
3       move said vehicle forwardly and rearwardly.

1           16.     A highly maneuverable and stable small sized motorized four wheel vehicle for  
2       transporting children or adults, said four wheel vehicle comprising in combination:

3           a) a frame;

4           b) a front axle for supporting a front wheel at each opposed end;

5           c) a steering assembly for turning said front wheels, said steering assembly

6       including a steering column extending up and canted forwardly, said steering column being  
7       adapted to swing a rider's upper body in the direction of a turn to shift the center of gravity  
8       laterally into the turn;

9           d) a rear live axle for supporting a rear wheel at each opposed end;

10          e) a seat assembly for supporting the rider, said seat assembly including a seat  
11       standard mounted forwardly of said rear axle;

12          f) a motor mounted on said frame at a location substantially above said rear axle;

13          g) a drive train interconnecting said motor with said rear axle; and

14          h) a compartment located forwardly of said steering assembly, said compartment

15 being adapted to transport articles placed therein.

1        17. The four wheel vehicle as set forth in Claim 16 including a throttle mounted on  
2        said steering assembly for controlling operation of said motor.

1        18. The four wheel vehicle as set forth in Claim 16 including spacers extending from  
2        said frame for supporting said rear axle and adapted to cant said frame forwardly downwardly.

1        19. The four wheel vehicle as set forth in Claim 16 wherein said front and rear wheels  
2        include tires, said tires of said rear wheels being of a width greater than the width of said tires of  
3        said front wheels.

1        20. The four wheel vehicle as set forth in Claim 16 including a manually operated  
2        brake for braking rotation of said rear axle.

1        21. The four wheel vehicle as set forth in Claim 20 wherein said brake includes a disc  
2        brake mounted on said rear axle.

1        22. A highly maneuverable and stable small sized motorized four wheel vehicle for  
2        transporting children or adults, said four wheel vehicle comprising in combination:  
3              a) a frame;  
4              b) a front axle for supporting a front wheel at each opposed end;

5                   c) a steering assembly for turning said front wheels;

6                   d) a rear live axle for supporting a rear wheel at each opposed end, one of said rear

7        wheels being rigidly attached to said live axle and the other of said rear wheels being attached to

8        said rear axle through a fitting adapted to accommodate independent rotation of said other rear

9        wheel relative to said one rear wheel;

10                  e) a seat assembly for supporting the rider, said seat assembly including a seat

11        standard mounted forwardly of said rear axle;

12                  f) an electric motor mounted on said frame at a location rearwardly of said seat

13        standard;

14                  g) a drive train interconnecting said motor with said rear axle;

15                  h) at least one battery for providing electric power to said motor, said at least one

16        battery being mounted on said frame intermediate said seat standard and said steering assembly;

17        and

18                  i) control circuitry for controlling operation of said motor in response to a throttle.

1           23.     A four wheeled vehicle as set forth in Claim 22 including spacers extending from

2        said frame for supporting said rear axle and adapted to cant said frame forwardly downwardly.

1           24.     The four wheel vehicle as set forth in Claim 22 including a manually operated

2        brake for braking rotation of said live axle.

1           25.     The four wheel vehicle as set forth in Claim 22 wherein said circuitry includes a

2 soft start circuitry for limiting the rate of initial rotation of said motor.

1            26. The four wheel vehicle as set forth in Claim 22 wherein said throttle is mounted  
2 on said steering assembly.